

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A computer-implemented method for ~~determining~~ calculating ~~adjusted~~ preference information, comprising:

~~storing preference information~~ storing, for a plurality of consumers, ~~preference information related to different attributes of a type of product, the stored preference information relating to an attribute of a product;~~ for an individual consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a first consumer, a second consumer, and other consumers;

dividing the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

based on the preference information stored for the first consumer, generating a first set of trade-off questions for the first consumer that solicit answers from the first consumer regarding choices between different attribute levels for attributes of the type of product;

providing the first set of trade-off questions relating to the attribute to [[a]] the first consumer;

predicting the first consumer's answers to the first set of trade-off questions;

receiving answers to the first set of trade-off questions from the first consumer;

determining, based on the received trade-off question answers, preference information associated with the consumer;

validating the trade-off question answers based determined preference information of the consumer; and

selecting, from among the multiple sub-groups of consumers, a first sub-group of consumers as a match for the first consumer, the selection of the first sub-group of consumers being based on preference information for the first user and preference information for constituent members of the first sub-group of consumers;

for at least one attribute level of a particular attribute of the type of product, calculating an average value of the first sub-group's preference for the at least one attribute level based on the stored values that are reflective of the first sub-group's constituent members' preferences for the at least one attribute level;

based on the first consumer's received answers to the first set of trade-off questions and the predicted answers to the first set of trade-off questions for the first consumer, determining a first adjustment factor for use in adjusting the stored value that is reflective of the first consumer's preference for the at least one attribute level;

mixing, using a computing device, based upon the validating of the trade-off question answers based determined preference information, the trade-off question answers based determined preference information of the consumer with the preference information of the plurality of consumers;

adjusting the stored value that is reflective of the first consumer's preference for the at least one attribute level as a function of the determined first adjustment factor and the average value of the first sub-group's preference for the at least one attribute level;

based on the preference information stored for the second consumer, generating a second set of trade-off questions for the second consumer that solicit answers from the second consumer regarding choices between different attribute levels for attributes of the type of product;

providing the second set of trade-off questions to the second consumer;

predicting the second consumer's answers to the second set of trade-off questions;

receiving answers to the second set of trade-off questions from the second consumer;

selecting, from among the multiple sub-groups of consumers, a second sub-group of consumers as a match for the second consumer, the selection of the second sub-group of consumers being based on preference information for the second user and preference information for constituent members of the second sub-group of consumers;

for the at least one attribute level, calculating an average value of the second sub-group's preference for the at least one attribute level based on the stored values that are reflective of the second sub-group's constituent members' preferences for the at least one attribute level;

based on the second consumer's received answers to the second set of trade-off questions and the predicted answers to the second set of trade-off questions for the second consumer, determining a second adjustment factor for use in adjusting the stored value that is reflective of the second consumer's preference for the at least one attribute level, wherein a degree to which the trade-off question answers based determined preference information associated with the consumer is mixed with the preference information associated with the plurality of consumers the second adjustment factor is different than a second degree to which second trade-off question answers based determined preference information associated with a second consumer is mixed with preference information of a second plurality of consumers, the first adjustment factor; and

adjusting the stored value that is reflective of the second consumer's preference for the at least one attribute level as a function of the determined second adjustment factor and the average value of the second sub-group's preference for the at least one attribute level.

2. (Currently amended) A method according to Claim 1, wherein the preference information associated with the consumer and the preference information associated with the plurality of other consumers comprise for the plurality of consumers includes normalized part worth values.

3. (Currently amended) A method according to Claim 2, wherein the preference information associated with the consumer and the preference information associated with the plurality of other consumers comprise for the plurality of consumers includes currency-normalized part worth values.

4. (Currently amended) A method according to Claim 1, further comprising: wherein selecting the first sub-group of consumers includes selecting the plurality first sub-group of consumers from a group of past consumers based on attribute levels identified as unacceptable by each consumer of the group of past constituent members of the first sub-group of consumers.

5. (Currently amended) A method according to Claim 4, wherein the ~~selected plurality of consumers are members of the group of past consumers who~~ constituent members of the first sub-group of consumers identified similar attribute levels as unacceptable.

6. (Currently amended) A method according to Claim 1, ~~further comprising: wherein selecting the first sub-group of consumers includes selecting the plurality of consumers from a group of past consumers~~ first sub-group of consumers based on part worth values associated with each consumer of the group of past stored for constituent members of the first sub-group of consumers.

7. (Currently amended) A method according to Claim 6, wherein the ~~selected plurality of consumers are members of the group of past consumers who~~ constituent members of the first sub-group of consumers are associated with similar preference information.

8. (Canceled)

9. (Currently amended) A method according to Claim ~~[[8.]]~~ 1, wherein ~~determining consumer subgroups comprises: dividing the plurality of consumers into sub-groups includes assigning past consumers to subgroups~~ sub-groups based on attribute levels that the past consumers indicated as unacceptable.

10. (Currently amended) A method according to Claim ~~[[8.]]~~ 1 wherein ~~determining consumer subgroups comprises: dividing the plurality of consumers into sub-groups includes assigning past consumers to subgroups~~ sub-groups based on part worth values associated with the past consumers.

11-12. (Canceled)

13. (Original) A method according to Claim 1, further comprising: determining an offer to sell a product based on the mixed preference information.

14. (Original) A method according to Claim 13, further comprising:
providing the offer to the consumer.

15. (Currently amended) A method according to Claim 1, wherein the first plurality sub-group of consumers is identical to the second plurality sub-group of consumers.

16. (Currently amended) A method according to Claim 1, wherein the first plurality sub-group of consumers does not include any consumers belonging to the second plurality sub-group of consumers.

17. (Currently amended) A method according to Claim 1, wherein one or more of the constituent members of the first plurality sub-group of consumers are members of the second plurality sub-group of consumers.

18. (Canceled)

19. (Original) A method according to Claim 1, wherein the plurality of consumers comprises a predetermined number of past consumers for whom preference information is stored.

20. (Original) A method according to Claim 19, wherein the predetermined number of past consumers are determined based on a time at which preference information associated with each of the predetermined number of consumers was collected.

21. (Original) A method according to Claim 1, wherein the plurality of consumers comprises all past consumers for whom preference information was collected during a particular time period.

22. (Currently amended) A computer-implemented method for determining calculating adjusted preference information, comprising:

storing preference information storing, for a plurality of consumers, preference information related to different attributes of a type of product, the stored preference information relating to an attribute of a product, for an individual consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a particular consumer and other consumers;

dividing the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

based on the preference information stored for the particular consumer, generating a set of trade-off questions for the particular consumer that solicit answers from the particular consumer regarding choices between different attribute levels for attributes of the type of product;

providing the set of trade-off questions relating to the attribute to [[a]] the particular consumer;

predicting the particular consumer's answers to the set of trade-off questions;

receiving answers to the set of trade-off questions from the particular consumer;

determining, using the answers to the trade-off questions, reference information associated with the consumer;

validating the preference information determined from the answers to the tradeoff questions; and

mixing, using a computing device, the preference information determined from the answers to the trade-off questions with preference information associated with the plurality of consumers based on the validating step.

selecting, from among the multiple sub-groups of consumers, a particular sub-group of consumers as a match for the particular consumer, the selection of the particular sub-group of consumers being based on preference information for the particular user and preference information for constituent members of the particular sub-group of consumers;

for at least one attribute level of a particular attribute of the type of product, calculating an average value of the particular sub-group's preference for the at least one attribute level based on the stored values that are reflective of the particular sub-group's constituent members' preferences for the at least one attribute level;

based on the particular consumer's received answers to the set of trade-off questions and the predicted answers to the set of trade-off questions for the particular consumer, determining an adjustment factor for use in adjusting the stored value that is reflective of the particular consumer's preference for the at least one attribute level; and

adjusting the stored value that is reflective of the particular consumer's preference for the at least one attribute level as a function of the determined adjustment factor and the average value of the particular sub-group's preference for the at least one attribute level.

23-26. (Canceled)

27. (Currently amended) A method according to Claim 22, ~~further comprising: wherein~~ selecting the particular sub-group of consumers includes selecting the plurality particular sub-group of consumers from a group of consumers based on attribute levels indicated as unacceptable by each consumer of the group of past constituent members of the particular sub-group of consumers.

28. (Currently amended) A method according to Claim 27, wherein the ~~selected plurality constituent members of the particular sub-group of consumers are members of the group of past consumers who~~ identified similar attribute levels as unacceptable.

29. (Currently amended) A method according to Claim 22, ~~further comprising: wherein~~ selecting the particular sub-group of consumers includes selecting the plurality particular sub-group of consumers from a group of past consumers based on part worth values associated with each consumer of the group of past of the constituent members of the particular sub-group of consumers.

30. (Currently amended) A method according to Claim 29, wherein the ~~selected plurality constituent members of the particular sub-group of consumers are members of the group of past consumers who~~ are associated with similar part worth values.

31. (Currently amended) A computer-implemented method ~~to produce~~ for calculating adjusted consumer preference information, comprising:

receiving, for a plurality of consumers, preference information related to different attributes of a product, the received preference information for an indication consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a particular consumer and other consumers;

currency-normalizing the received preference information for the plurality of consumers;

storing the currency-normalized preference information for [[a]] the plurality of consumers; the preference information relating to an attribute of a product; consumers;

dividing the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

based on the currency-normalized preference information stored for the particular consumer, generating a set of trade-off questions for the particular consumer that solicit answers from the particular consumer regarding choices between different attribute levels for attributes of the type of product;

providing the set of trade-off questions relating to the attribute to [[a]] the particular consumer;

predicting the particular consumer's answers to the set of trade-off questions;

receiving answers to the set of trade-off questions from the particular consumer;

determining, based on the received trade-off question answers, consumer preference information associated with the consumer;

currency-normalizing, using a computing device, the trade-off question answer-based determined consumer preference information; and

~~mixing, using a computing device, the currency-normalized trade-off question answer-based determined consumer preference information with the preference information of the plurality of consumers;~~

selecting, from among the multiple sub-groups of consumers, a particular sub-group of consumers as a match for the particular consumer, the selection of the particular sub-group of consumers being based on currency-normalized preference information for the particular user and currency-normalized preference information for constituent members of the particular sub-group of consumers;

for at least one attribute level of a particular attribute of the type of product, calculating an average value of the particular sub-group's currency-normalized preference for the at least one attribute level based on the stored currency-normalized values that are reflective of the particular sub-group's constituent members' currency-normalized preferences for the at least one attribute level;

based on the particular consumer's received answers to the set of trade-off questions and the predicted answers to the set of trade-off questions for the particular consumer, determining an adjustment factor for use in adjusting the currency-normalized stored value that is reflective of the particular consumer's currency-normalized preference for the at least one attribute level;
and

adjusting the stored currency-normalized value that is reflective of the particular consumer's currency-normalized preference for the at least one attribute level as a function of the determined adjustment factor and the average value of the particular sub-group's currency-normalized preference for the at least one attribute level.

32. (Original) A method according to Claim 31, further comprising:
providing an offer based on the currency-normalized information.

33. (Original) A method according to Claim 32, further comprising:
providing the offer to the consumer.

34. (Withdrawn) A method, in a system to collect consumer preference information, for determining consumer trade-off questions based on a plurality of attribute levels, each of the plurality of attribute levels being associated with an attribute and a part worth utility value, the method comprising:

grouping the attribute levels into objects including two attribute levels, each of the two attribute levels of an object being associated with different attributes; and

grouping the objects into pairs including two objects, a first object of a pair including a first two attribute levels associated with two attributes and a second object of the pair including a second two attribute levels associated with the two attributes; and

selecting, from the pairs, a plurality of pairs on which to base trade-off questions, wherein a first pair is more likely to be selected than a second pair if a sum of part worth utility values associated with each attribute level of the first pair is greater than a sum of part worth utility values associated with each attribute level of the second pair.

35-39. (Canceled)

39. (Currently amended) A medium storing processor-executable process steps, the process steps comprising:

a step to store preference information regarding store, for a plurality of consumers, [[the]] preference information relating related to an attribute different attributes of a product; type of product, the stored preference information for an individual consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a first consumer, a second consumer, and other consumers;

a step to divide the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

a step to generate, based on the preference information stored for the first consumer, a first set of trade-off questions for the first consumer that solicit answers from the first consumer regarding choices between different attribute levels for attributes of the type of product;

a step to provide the first set of trade-off questions relating to the attribute to [[a]] the first consumer;

a step to predict the first consumer's answers to the first set of trade-off questions;

a step to receive answers to the first set of trade-off questions from the first consumer;

a step to determine, based on the received trade-off question answers, preference information associated with the consumer;

a step to validate the trade-off question answers based determined preference information of the consumer; and

a step to mix the trade-off question answers based determined preference information of the consumer, based on the validating of the trade-off question answers based determined preference information, with the preference information associated with the plurality of consumers;

a step to select, from among the multiple sub-groups of consumers, a first sub-group of consumers as a match for the first consumer, the selection of the first sub-group of consumers being based on preference information for the first user and preference information for constituent members of the first sub-group of consumers;

a step to calculate, for at least one attribute level of a particular attribute of the type of product, an average value of the first sub-group's preference for the at least one attribute level based on the stored values that are reflective of the first sub-group's constituent members' preferences for the at least one attribute level;

a step to determine, based on the first consumer's received answers to the first set of trade-off questions and the predicted answers to the first set of trade-off questions for the first consumer, a first adjustment factor for use in adjusting the stored value that is reflective of the first consumer's preference for the at least one attribute level;

a step to adjust the stored value that is reflective of the first consumer's preference for the at least one attribute level as a function of the determined first adjustment factor and the average value of the first sub-group's preference for the at least one attribute level;

a step to provide the second set of trade-off questions to the second consumer;

a step to predict the second consumer's answers to the second set of trade-off questions;

receiving answers to the second set of trade-off questions from the second consumer;

a step to select, from among the multiple sub-groups of consumers, a second sub-group of consumers as a match for the second consumer, the selection of the second sub-group of consumers being based on preference information for the second user and preference information for constituent members of the second sub-group of consumers;

a step to calculate, for the at least one attribute level, an average value of the second sub-group's preference for the at least one attribute level based on the stored values that are reflective of the second sub-group's constituent members' preferences for the at least one attribute level;

a step to determine, based on the second consumer's received answers to the second set of trade-off questions and the predicted answers to the second set of trade-off questions for the second consumer, a second adjustment factor for use in adjusting the stored value that is reflective of the second consumer's preference for the at least one attribute level, wherein a degree to which the trade-off question answers based determined preference information associated with the consumer is mixed with the preference information associated with the plurality of consumers the second adjustment factor is different than a second degree to which second trade-off question answers based determined preference information associated with a second consumer is mixed with preference information of a second plurality of consumers; the first adjustment factor; and

a step to adjust the stored value that is reflective of the second consumer's preference for the at least one attribute level as a function of the determined second adjustment factor and the average value of the second sub-group's preference for the at least one attribute level.

40. (Currently amended) A medium according to Claim 39, wherein the preference information ~~associated with the consumer and the preference information associated with the~~ for the plurality of other consumers comprise normalized part worth values.

41. (Currently amended) A medium according to Claim 40, wherein the preference information ~~associated with the consumer and the preference information associated with the~~ for the plurality of other consumers comprise currency-normalized part worth values.

42. (Currently amended) A medium according to Claim 39, ~~the process steps further comprising a~~ wherein the step to select the plurality first sub-group of consumers from a group includes a step to select the first sub-group of ~~past~~ consumers based on attribute levels identified as unacceptable by each ~~consumer of the group of past of the constituent members of the first~~ sub-group of consumers.

43. (Currently amended) A medium according to Claim 42, wherein the ~~selected plurality constituent members of the first sub-group~~ of consumers ~~are members of the group of past consumers who~~ identified similar attribute levels as unacceptable.

44. (Currently amended) A medium according to Claim 39, ~~the process steps further comprising a~~ the step to select the plurality first sub-group of consumers from a group includes a step to select the first sub-group of ~~past~~ consumers based on part worth values associated with each ~~consumer of the group of past of the constituent members of the first sub-group of~~ consumers.

45. (Currently amended) A medium according to Claim 44, wherein the ~~selected plurality constituent members of the first sub-group~~ of consumers ~~are members of the group of past consumers who~~ are associated with similar preference information.

46. (Canceled)

47. (Currently amended) A medium according to Claim 46, wherein the step to ~~determine consumer subgroups comprises:~~ divide the plurality of consumers into sub-groups includes a step to assign ~~past~~ consumers to ~~subgroups~~ sub-groups based on attribute levels that the ~~past~~ consumers indicated as unacceptable.

48. (Currently amended) A medium according to Claim 46, wherein the step to ~~determine consumer subgroups comprises:~~ divide the plurality of consumers into sub-groups

includes a step to assign ~~past~~ consumers to ~~subgroups~~ sub-groups based on part worth values associated with the ~~past~~ consumers.

49-50. (Canceled)

51. (Original) A medium according to Claim 39, the process steps further comprising: a step to determine an offer to sell a product based on the mixed preference information

52. (Original) A medium according to Claim 51, the process steps further comprising: a step to provide the offer to the consumer.

53. (Currently amended) A medium according to Claim 39, wherein the first ~~plurality~~ sub-group of consumers is identical to the second ~~plurality~~ sub-group of consumers.

54. (Currently amended) A medium according to Claim 39, wherein the first ~~plurality~~ sub-group of consumers does not include any consumers belonging to the second ~~plurality~~ sub-group of consumers.

55. (Currently amended) A medium according to Claim 39, wherein one or more of the constituent members of the first ~~plurality~~ sub-group of consumers belong to the second ~~plurality~~ sub-group of consumers.

56. (Canceled)

57. (Original) A medium according to Claim 39, wherein the plurality of consumers comprises a predetermined number of past consumers for whom preference information is stored.

58. (Previously presented) A medium according to Claim 57, wherein the predetermined number of past consumers are determined based on a time at which preference information associated with each of the predetermined number of consumers was collected.

59. (Original) A medium according to Claim 39, wherein the plurality of consumers comprises all past consumers for whom preference information was collected during a particular time period.

60. (Currently amended) A medium storing processor-executable process steps, the process steps comprising:

a step to ~~store preference information store~~, for a plurality of consumers, ~~[[the]]~~ preference information ~~relating related to an attribute~~ different attributes of a product; type of product, the stored preference information for an individual consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a particular consumer and other consumers;

dividing the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

based on the preference information stored for the particular consumer, generating a set of trade-off questions for the particular consumer that solicit answers from the particular consumer regarding choices between different attribute levels for attributes of the type of product;

a step to provide the set of trade-off questions ~~relating to the attribute to [[a]]~~ the particular consumer;

a step to predict the particular consumer's answers to the set of trade-off questions;

a step to receive answers to the set of trade-off questions from the particular consumer;

~~a step to determine, based upon the answers to the trade-off questions, preference information associated with the consumer;~~

~~a step to validate the preference information determined based upon the answers to the trade-off questions; and~~

~~a step to mix the preference information determined based upon the answers to the trade-off questions with preference information associated with a plurality of consumers based on the validating step;~~

a step to select, from among the multiple sub-groups of consumers, a particular sub-group of consumers as a match for the particular consumer, the selection of the particular sub-group of consumers being based on preference information for the particular user and preference information for constituent members of the particular sub-group of consumers;

a step to calculate, for at least one attribute level of a particular attribute of the type of product, an average value of the particular sub-group's preference for the at least one attribute level based on the stored values that are reflective of the particular sub-group's constituent members' preferences for the at least one attribute level;

based on the particular consumer's received answers to the set of trade-off questions and the predicted answers to the set of trade-off questions for the particular consumer, determining an adjustment factor for use in adjusting the stored value that is reflective of the particular consumer's preference for the at least one attribute level; and

adjusting the stored value that is reflective of the particular consumer's preference for the at least one attribute level as a function of the determined adjustment factor and the average value of the particular sub-group's preference for the at least one attribute level.

61-64. (Canceled)

65. (Currently amended) A medium according to Claim 60, ~~the process steps further comprising a~~ wherein the step to select the plurality particular sub-group of consumers from a group includes a step of selecting the particular sub-group of consumers based on attribute levels indicated as unacceptable by each consumer of the group of past constituent member of the particular sub-group of consumers.

66. (Currently amended) A medium according to Claim 65, wherein the selected plurality constituent members of the particular sub-group of consumers are members of the group of past consumers who identified similar attribute levels as unacceptable.

67. (Currently amended) A medium according to Claim 60, ~~the process steps further comprising: a~~ wherein the step to select the plurality particular sub-group of consumers ~~from a group~~ includes a step of selecting the particular sub-group of ~~past~~ consumers based on part worth values associated with each ~~consumer of the group of past~~ of the constituent members of the particular sub-group of consumers.

68. (Currently amended) A medium according to Claim 67, wherein the selected plurality constituent members of the particular sub-group of consumers ~~are members of the group of past consumers who~~ are associated with similar part worth values.

69. (Currently amended) A medium storing processor-executable process steps to produce consumer preference information, the process steps comprising:

a step to receive, for a plurality of consumers, preference information related to different attributes of a product, the received preference information for an indication consumer including numerical values that are reflective of the individual consumer's preference for different attribute levels for the attributes of the type of product, and the plurality of consumers including a particular consumer and other consumers;

a step to currency-normalize the received preference information for the plurality of consumers;

a step to store the currency-normalized preference information for [[a]] the plurality of consumers; the preference information relating to an attribute of a product; consumers;

a step to divide the plurality of consumers into multiple different sub-groups that include less than all of the plurality of consumers;

a step to generate, based on the currency-normalized preference information stored for the particular consumer, a set of trade-off questions for the particular consumer that solicit answers from the particular consumer regarding choices between different attribute levels for attributes of the type of product;

a step to provide the set of trade-off questions relating to the attribute to [[a]] the particular consumer;

a step to predict the particular consumer's answers to the set of trade-off questions;
a step to receive answers to the set of trade-off questions from the particular consumer;
a step to determine, based on the received trade-off question answers, consumer
preference information associated with a consumer;
a step to currency-normalize the trade-off question answer-based determined consumer
preference information; and
a step to mix, using a computing device, the currency-normalized trade-off question
answer-based determined consumer preference information with the preference information of
the plurality of consumers;
a step to select, from among the multiple sub-groups of consumers, a particular sub-group
of consumers as a match for the particular consumer, the selection of the particular sub-group of
consumers being based on currency-normalized preference information for the particular user
and currency-normalized preference information for constituent members of the particular sub-
group of consumers;
a step to calculate, for at least one attribute level of a particular attribute of the type of
product, an average value of the particular sub-group's currency-normalized preference for the at
least one attribute level based on the stored currency-normalized values that are reflective of the
particular sub-group's constituent members' currency-normalized preferences for the at least one
attribute level;
a step to determine, based on the particular consumer's received answers to the set of
trade-off questions and the predicted answers to the set of trade-off questions for the particular
consumer, an adjustment factor for use in adjusting the currency-normalized stored value that is
reflective of the particular consumer's currency-normalized preference for the at least one
attribute level; and
a step to adjust the stored currency-normalized value that is reflective of the particular
consumer's currency-normalized preference for the at least one attribute level as a function of the
determined adjustment factor and the currency-normalized value of the particular sub-group's
currency-normalized preference for the at least one attribute level.

70. (Original) A medium according to Claim 69, the process steps further comprising:

Applicant : Sev K. H. Keil et al.
Serial No. : 09/845,051
Filed : April 27, 2001
Page : 20 of 24

Attorney's Docket No.: 24491-0007001

a step to provide an offer based on the currency-normalized information.

71. (Original) A medium according to Claim 70, the process steps further comprising:
a step to provide the offer to the consumer.

72-77. (Canceled)